# NST The Intersection of Cloud Mobility Forum and Workshop

October 1-3, 2013 ● National Institute of Standards and Technology



## The New Frontiers in IT and Measurement Science

Rapid advances in mobile cloud computing are bringing sweeping changes to the way mobile computing and communication services are delivered around the globe. More than an incremental change, mobile cloud computing is expected to radically alter users' working and life styles.

#### From Cloud & Mobility > To Cloud Mobility

Cloud provides ubiquitous, on-demand, elastic, selfconfigurable, cost effective computing. Mobile devices are accessible, convenient gadgets, with regional wireless communication services and limited data services that have limited computing and power resources. Low-end mobile devices access diverse and scalable cloud computing resources and globally connected mobile enabled resources to receive unlimited mobile application services.

As part of its continuing cloud computing series, the National Institute of Standards and Technology (NIST) is hosting a new forum on Cloud and Mobility. Join fellow experts in the fields of cloud, mobility, and measurement for thought-provoking plenary talks, panel presentations, facilitated breakout discussion, poster sessions, and networking around these themes:

- Federal Perspectives on Cloud and Mobility
- The Vision for Cloud and Mobility
- Current State of Cloud and Mobility Intersections
- Intersections of Cloud and Mobility on the Horizon
- Bringing Mobility and Cloud Together

- Challenges and Lessons Learned
- Lessons Learned in Mobility
- Challenges for Cloud and Mobility, including
- Use Cases, Technologies, Consumer Issues
- Domain- and Sector-Specific Perspectives
- Path Forward to a Federated Mobile Cloud

#### **Proactive Participation**

The workshop agenda follows. Registrants are asked at registration to select their preferences for the following focused breakout sessions. Selected sessions will be professionally facilitated, and the outcomes summarized in a workshop report, in which participants will be acknowledged as contributors.

#### **Tuesday, October 1**

#### **FUTURE DIRECTIONS**

- 1. Federated Community Cloud Roadmap
- 2. Accessibility Cloud Roadmap
- 3. Future Cloud: Implications for Mobility
- 4. Future Mobility: Implications for the Cloud

#### Wednesday, October 2

#### **CHALLENGES**

- 2.1 Reliability Design Goals
- 2.2 Privacy and Security Issues
- 2.3 Cloud-Enhancing Mobility Applications
- 2.4 Ubiquitous Computing

#### Thursday, October 3

#### **PATH FORWARD**

- 3.1 Federated Mobile Cloud
- 3.2 Privacy and Security
- 3.3 Accessibility
- 3.4 Ubiquitous Computing

# The Intersection of Cloud Mobility Forum and Workshop

### **Preliminary Agenda**

3:00 pm

**Relocation Break** 

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	ber 1-3, 2013 • National institute of Standards and Technology • Gaithersburg, MD		
Tuesday,	October 1 THEME: Future Vision		
8:00 am	Registration and Networking		
9:00 am	Introduction to Forum and Workshop		
9:05 am	Welcome & Opening Remarks Willie E. May, Associate Director for Laboratory Programs, NIST		
9:15 am	Keynote: Federal Perspectives on Cloud and Mobility Steven L. VanRoekel, Federal Chief Information Officer, Office of Management and Budget		
9:30 am	Keynote: The Vision for Cloud and Mobility Pamela J. Wise-Martinez, Senior Strategic Enterprise Architect, Office of the Director of National Intelligence		
10:00 am	<ul> <li>Moderated Panel: Current State of Cloud and Mobility Intersections</li> <li>Moderator: Keith Trippie, Executive Director for Enterprise System Development Office, Department of Homeland Security</li> <li>Panelists:</li> <li>→ Mark Ryland, Chief Solutions Architect, Amazon</li> <li>→ Joseph Portale, Chief Technologist~Mobility, Lockheed Martin</li> <li>→ Bryan Coapstick, Director, Mobile Innovation, Enterprise Services U.S. Public Sector, Hewlett-Packard</li> <li>→ Allessandro Acquisti, Associate Professor of Information Technology and Public Policy, Carnegie Mellon University</li> </ul>		
11:15 am	Coffee Break		
11:30 am	Plenary Session: Progress on USG Cloud Computing Technology Roadmap Priority Action Plan Successes Topics and Hosts:  > Security Reference Architecture: Michaela Iorga, NIST  > Metrics: Fred deVaulx, NIST, and Jacques Durand, Director of R&D, Fujitsu  > Service Level Agreements: John Messina, NIST, and John Calhoun, Microsoft  > Standards: Mike Hogan / Annie Sokol, NIST		
12:45 pm	Lunch, Poster Session, Informal Roundtable Conversations		
2:00 pm	Moderated Panel: Intersections of Cloud and Mobility on the Horizon ~ discussion of near and future applications and technologies  Moderator: Robert Anderson, Chief, Vision and Strategy Division, U.S. Marine Corps Panelists:  ▶ Dennis Quan, Vice President of SmartCloud, IBM  ▶ Monique J. Morrow, CTO Consulting Engineer, Cisco Systems (invited)  ▶ Jim Davis, Associate Vice Chancellor IT & CIO, UCLA  ▶ Shankar Sastry, Dean, College of Engineering, UC Berkeley (invited)		

#### NIST Forum and Workshop on the Intersection of Cloud and Mobility

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Tuesday,	October 1 THEME: Future Vision (continu	ued)			
3:15 pm	Concurrent Breakout Sessions: Future Directions for Cloud and Mobility				
	Session	Co-Hosts			
	1: Federated Community Cloud – Approaches to the Cloud Roadmap Priority Action Plan	Steve Diamond, EMC/IEEE, and John Messina, NIST			
	<b>2: Accessibility</b> – Approaches to the Cloud Roadmap Priority Action Plan	Charlie Lakin, NIDRR/DoEd, and Bob Bohn, NIST			
	3: The Future Cloud and its Implications for Mobility	Tom Suder, MobileGov, and Fred deVaulx, NIST			
	4: The Future of Mobility and its Implications for the Cloud	Irena Bojanova, UMUC, and Andrew Regenscheid, NIST			
4:40 pm	Relocation Break				
4:45 pm	Day 1 Closing Remarks Chuck Romine, Director, Information Technology Laboratory	y, NIST			

Wednes	day, October 2 THEME: Challenges For Cloud and Mobility		
8:00 am	Registration and Networking		
9:00 am	Opening Remarks Chuck Romine, NIST		
9:10 am	Reports on Day 1 Breakout Sessions		
9:30 am	Keynote: Bringing Mobility and Cloud Together ~ Key Challenges and Lessons Learned Gunnar Hellekson, Chief Technology Strategist ~U.S. Public Sector, Red Hat		

#### 10:00 am Moderated Panel: Lessons Learned in Mobility

Moderator: Michael Panico, Vice President, Stroz Friedberg (invited)

#### Panelists:

- Susie Adams, CTO, Microsoft Federal
- Mark Fox, DOD Sales Manager, Amazon
- Winston Bumpus, Director of Standards Architecture, VMWare and President DMTF
- ➤ Scott McGrath, COO, OASIS

#### 11:15 am **Break**

### 11:30 am Plenary Session 1: Challenges for Cloud and Mobility ~ Use Cases, Technologies, Consumer Issues

Technology Challenges (interoperability/portability/accessibility/mobile sensors/CPS)

➤ Gurvinder Ahluwalia, CTO Cloud Computing, IBM West US Region

#### **Business/Economic Challenges**

> Duncan Sparrell, Distinguished Member of Technical Staff, Chief Security Office, AT&T

#### **Privacy & Security**

> Naomi Lefkowitz, Senior Privacy Policy Advisor, Information Technology Laboratory, NIST

#### **Security Challenges**

> Tom Karygiannis, Senior Researcher, Computer Security Division, NIST

#### **Behavioral Components: Human Interactions**

➤ Laura Brandimarte, Post-Doctoral Fellow, Carnegie Mellon University

#### 12:45 pm Lunch, Poster Session, Informal Conversations

#### 2:00 pm Keynote:

Teri M. Takai, Acting Assistant Secretary of Defense for Networks and Information Integration and CIO, U.S. Department

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#### Wednesday, October 2 THEME: Challenges For Cloud and Mobility (continued)

#### $^{2:30~pm}$ Plenary Session 2: Challenges for Cloud and Mobility ~ Domain- and Sector-specific Issues

First Responders

> Ben T. Katsumi, President & CEO @ Information Economy Research Institute

#### **Defense & Intelligence**

- > Dawn Meyerriecks, CIA
- Priscilla Guthrie, CTO, CYBERCOM

#### Financial/Banking/Business

> Fred Lima, Security Architect, VISA

#### 3:30 pm Relocation Break

3:40 pm	Concurrent Breakout Sessions: Challenges at the Intersection of Cloud and Mobility		
	Session	Co-hosts	
	2.1: Reliability Design Goals Research	Jean-Paul Smets, VIFIB (France) Kevin Mills, NIST	
	2.2: Privacy and Security Issues	John Summers, VP, Security Products, Akamai Ron Ross, NIST	
	2.3: Cloud-Enhancing Mobility Applications	Raheleh Dilmaghani, IBM Nader Moayeri, NIST	
	2.4: Ubiquitous Computing	Eric Simmon, NIST David Corman, NSF	

#### 4:40 pm Relocation Break

#### 4:45 pm Day 2 Closing Remarks

Jim St. Pierre, Deputy Director, Information Technology Laboratory, NIST

Thursday, October 3 THEME: Path		THEME: Patl	h Forward		
8:00 am	Registration and Networking				
9:00 am	Opening Remarks				
	Jim St. Pierre, NIST				
9:10 am	Reports on Day 2 Breakout Sessions				
9:30 am	Keynote: Path Forward to a Federated Mobile Cloud				
	Mario Gerla, Professor, Computer Science Department, UCLA				
10:00 am	Coffee & Relocation				
10:15 am	Breakout Sessions – Path Forward: Working Together on Major Challenges				
	Session		Co-hosts		
	3.1: Federated Mo	obile Cloud	Robert Brammer, Northrup Grumman, and Bill Newhouse, NIST		

Eric Hibbard, Hitachi, and Michaela Iorga, NIST

Karuna Joshi, UMBC, and Mary Theofanos, NIST

Eswaran Subrahmanian, CMU, and William J. Miller, MaCT

#### 11:45 am Relocation Break

3.2: Privacy and Security

3.4: Ubiquitous Computing

3.3: Accessibility

#### 12:00 pm Summary Comments on Path Forward Breakout Discussions

#### 12:20 pm Next Steps/Adjourn